

**AMENDMENTS TO THE CLAIMS:**

Please amend the claims as follows:

Claims 1-100. (Cancelled)

101. (new) A process for screening glycoform specific antibodies among antibodies elicited against a first glycoprotein which is pituitary or blood human TSR, comprising a step of determination of the binding between

(a) antibodies elicited against the first glycoprotein,

(b) at least one glycoform of a second glycoprotein which is recombinant human TSR produced by mammalian cells, said second glycoprotein being itself a glycoform of the first glycoprotein,

wherein said glycoform of the second glycoprotein is selected from a group of glycoforms of the second glycoprotein, each glycoform of said group corresponding to a determined glycosylation state being

(a) essentially more sialylated, more branched and less fucosylated than said second glycoprotein, or

(b) essentially more sialylated, less branched and less fucosylated than said second glycoprotein,

to produce antibodies capable of binding to at least one given glycoform of the second glycoprotein.

102. (new) The process according to claim 101, wherein the antibodies elicited against the first glycoprotein bind to the second glycoprotein with an affinity equal to or higher than the binding affinity of said antibodies to the first glycoprotein.

103. (new) The process according to claim 101, wherein a glycoform of the second glycoprotein being:

(a) essentially more sialylated, more branched and less fucosylated than said second glycoprotein, or

(b) essentially more sialylated, less branched and less fucosylated than said second glycoprotein,

is obtained by a combination of at least one enzymatic modification of the second glycoprotein and/or of at least one lectin fractionation.

104. (new) The process according to claim 103, wherein the lectin is selected from the group comprising mannose-specific lectins, such as the ConA or Lentil lectins, fucose-specific lectins, such as the Ulex lectin, galactose-specific lectins, such as ricin, or sialic acid-specific lectins, such as the limulin or Sambucus nigra lectin.

105. (new) The process according to claim 103, wherein the enzymatic modification is carried out by an enzyme selected from the group comprising a glycosidase, in particular a neuraminidase or fucosidase, or a glycosyltransferase, in particular a sialyltransferase.

106. (new) The process according to claim 103, wherein a less fucosylated glycoform of the second glycoprotein as compared to the second glycoprotein is obtained by lentil fractionation of the second glycoprotein by collecting the fraction which does not bind to lentil.

107. (new) The process according to claim 103, wherein a ConA fractionation of the second glycoprotein is performed by collecting three fractions, A, B, and C, the binding of which to ConA is such that,

C binds to ConA more strongly than B does, and

B binds to ConA more strongly than A does,

the branching state of a given fraction being essentially different from the branching state of the other two fractions.

108. (new) The process according to claim 101, wherein a more sialylated glycoform of the second glycoprotein as compared to the second glycoprotein is obtained by sialyltransferase treatment of said second glycoprotein or by neuraminidase treatment followed by sialyltransferase treatment of said second glycoprotein.

109. (new) The process according to claim 105 or 108, wherein the sialyltransferase is a  $\alpha$ -2,6-sialyltransferase, in particular a ST6Gal sialyltransferase, more particularly a N-terminal shortened ST6Gal sialyltransferase deleted of at most its first 99 residues, such as represented by SEQ ID NO: 1.

110. (new) The process according to claim 103, wherein, in a preliminary step, the antibodies to be screened are classified in pools, each pool being characterized in that two antibodies selected from a same pool can not bind to the same glycoprotein at the same time.

111. (new) The process according to claim 101, in a preliminary step, the antibodies to be screened are classified in pools, each pool being characterized in that

two antibodies selected from a same pool can not bind to the same glycoprotein at the same time,

and wherein in a first step said preceding the preliminary step, it is checked that the antibodies elicited against the first glycoprotein bind to the second glycoprotein.

112. (new) The process according to claim 101, wherein the binding of the antibodies to the first glycoprotein, to the second glycoprotein and to the glycoforms of the second glycoproteins is determined by using immunoassays, in particular immunoassay formats using an amplification system for detection, such as an ELISA.

113. (new) The process according to claim 112, wherein the immunoassay is a sandwich immunoassay, in particular a sandwich ELISA test, comprising the following steps:

fixing a capture antibody, selected from a pool obtained in a preliminary step, said preliminary step being such that the antibodies to be screened are classified in pools, each pool being characterized in that two antibodies selected from a same pool can not bind to the same glycoprotein at the same time onto a support,

contacting a glycoprotein, corresponding to the first glycoprotein, to the second glycoprotein or to the glycoforms of the second glycoprotein, to said capture antibody, to form, if adequate, a capture antibody-glycoprotein binary complex,

contacting a tracer antibody, selected from a pool obtained in a preliminary step, said preliminary step being such that the antibodies to be screened are classified in pools, each pool being characterized in that two antibodies selected from a same pool

RONIN et al.  
Appl. No. 10/588,220  
Atty. Ref.: 1487-29  
Amendment  
Monday, April 6, 2009

can not bind to the same glycoprotein at the same time, provided said pool is different from the one used for the selection of said capture antibody, to said capture antibody-glycoprotein binary complex, to form, if adequate, a capture antibody-glycoprotein-tracer antibody ternary complex,

detecting the tracer antibody for measuring the number of ternary complexes.